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ABSTRACT

The program description gives basic information on the one-year social studies course focusing on anthropology, designed primarily for intermediate-grade (4-6) students but applicable to secondary students. While the long range objective is for students to contemplate the nature of man and the forces that shape his humanity, some terminal objectives are to give students confidence in their reasoning abilities, a framework for analyzing the nature of their social world, an understanding of man's capabilities, and concern for the human condition. The teaching-learning strategy emphasizes student-teacher cooperative interaction in the sharing and discussing of ideas. Stressing problems solving using the inquiry approach, techniques employ the tools of behavioral science. Brief information is also provided on the project's typical lessons, view of student evaluation, and out of class preparation; arrangement and school facilities, student and teacher prerequisites and training, the cost of materials, equipment, and services needed for implementation of the project; and also background, rationale and evaluation of the project. (SJM)

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MAN: A COURSE OF STUDY

Program Report

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BASIC INFORMATION

Program Name:

Man: A Course of Study

Format:

Films, filmstrips, pamphlets, records, games, each covering a specific aspect of cultural geography.

Uniqueness:

By using the films, booklets, games, and other materials students can come to an understanding of man and his culture in a way that is similar to the methods used by scholars in the field. Students are encouraged to speculate and to compare other cultures with their own.

Content:

Biological and cultural study of man, his relationship to animals, and the diversity of his cultures. Specifically, the course concentrates on salmon, herring gulls, baboons, and the Netsilik Eskimo. Central question is, "What makes man human?"

Suggested Use:

Complete, one-year social studies course.

Target Audience:

Designed primarily for intermediate-grade (4-6) students of all ability levels; course can be adapted for secondary students (7-12) or even adults.

Length of Use:

One school year for entire program; individual units last from 3 days to 3 weeks.

Aids for Teachers:

Developers provide 9 booklets with background information, sample daily lessons, bibliography, discussion questions, inservice seminars, evaluation suggestions, etc.

Director/Developer:

Peter B. Dow/Education Development Center, Inc., 15 Mifflin Place, Cambridge, Mass. 02138.

Publisher:

Curriculum Development Associates, Inc., Suite 414, 1211 Connecticut Ave., N.W., Washington, D.C. 20036;
(202) 293-1760.

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INTRODUCTION

Cultural anthropology may seem an unusual subject for an elementary school program, but that's what Man: A Course of Study is all about: man's relation to animals, and the diversity and richness of his cultures and behavior. Students probe the question, "What makes man human?" as they view films and filmstrips, listen to recordings, and read the more than 20 pamphlets that make up the course "text." Most of their time is spent in class discussions, reading, and independent projects. The program reflects Jerome Bruner's concept of "organizing ideas" that can shape and stimulate thought. The teacher is thus expected to ask questions primarily to guide students in interpreting what they have read or observed. Students, in turn, are expected to raise "why?" questions, and are urged to compare what they learn with their own experiences and to share their ideas with each other, gaining in the process a capacity for "self-reflection" and some ability in using the tools of behavioral science to order and understand the world.

1. GOALS AND OBJECTIVES

The goals of Man: A Course of Study (MACOS) will be discussed in three sections; long-range goals are those which refer to the students' lives long after they have studied the program; terminal objectives describe what the student should know by the end of his study of the program; detailed objectives are the statements of what a student should know after completing a small section of the program.

1.1 Long-range goals.

Man: A Course of Study is intended to stimulate children's thinking about the nature of man and to question the common impulses and behaviors that unite all men. Children should gain insight into the biological ties that unite man with other animals. They should also acquire an awareness of the ways that cultural differences affect human behavior and judgment. By studying instance; of animal and human behavior, students should gain a new perspective on themselves and the culture they share. The developers state: "We want children to know and care about the humanity of man [and be able to cope] with the immense cultural distances which divide the modern world."¹

1.2 Terminal objectives.

A brief summary of the terminal objectives for Man: A Course of Study includes these aims:

1. To give pupils confidence in the powers of their own minds.
2. To provide them with a set of workable models for analyzing the nature of the social world in which they live, the condition in which man finds himself.
3. To impart an understanding of the capacities of man as a species in contrast to other animals.
4. To instill concern for the human condition in all its forms, whatever race and culture.²

1.3 Detailed objectives.

The developers of Man: A Course of Study have not written detailed objectives for each unit or lesson. Instead, they have included in the teacher's guide a discussion of what the students will learn from the lesson.

An example from a lesson on salmon is illustrative:

How do salmon find their way to their homestream? Why do they return to their homestream? Why is it advantageous for salmon to return to the same place at the same time as other salmon?

These questions and others are raised in this lesson. As they answer some of them, the children consider the causes of behavior--What makes the fish act the way it does? As they answer other questions, the children think about the advantage of the behaviors for the survival of the salmon species.³

2. CONTENT AND MATERIALS

2.1 Content focus.

The content focus of Man: A Course of Study is on cultural anthropology--the study of man's many forms of social and personal behavior which define him culturally and individually. The developers state:

The content of the course is man: his nature as a species, the forces the shaped and continue to shape his humanity We seek exercises and materials through which our pupils can learn wherein man is distinctive in his adaptation to the world, and wherein there is a discernible continuity between man and his animal forebears.⁴

2.2 Content and organization of the subdivisions.

"What makes man human?" This question is studied through four major topics of Man: A Course of Study: salmon, herring gulls, baboons, and the Netsilik Eskimos. The first three topics, plus an introduction, comprise the first semester's work. The second semester consists entirely of a study of the Netsilik Eskimos. The first semester's work is divided into four units: Introduction, Salmon, Herring Gulls, and Baboons. These four units, in turn, are divided into 29 lessons. The second semester's study is divided into two units: The Netsilik Eskimos at the Inland Camps and the Netsilik Eskimos on the Sea Ice. These two units are divided into seven smaller units which, in turn, are divided into 37 lessons. The average lesson is 2-1/2 to 3 days in length.

In the introductory units, students learn about the similarities among all men and study the concept of life cycle. This unit serves as a bridge to the study of man through the study of other animals.

The unit on salmon begins with the study of the relationship between an animal's structure, (examples of structure are fins, tail, teeth), behavior, and environment. Students discuss the causes of salmon behavior, and then contrast elements of salmon and human life cycles, including parenthood, heredity, etc.

The unit on herring gulls extends the discussion of parenthood introduced in the salmon unit. Since herring gulls are a species whose family structure is strikingly similar to human society, the comparison with humans helps children to distinguish between instinctive and learned behavior, to examine the ways in which learning relates to adaptation, to understand how the structure of an organism reflects its function, and how all behavior must be understood in terms of requirements for survival. The concepts of communication, territoriality, and

aggression are introduced.

In the unit on baboons, questions are raised about dominance, aggression, sharing and reciprocity, territoriality and exchange, infant care, and various interpersonal relationships within small groups. Methods of field observation are also studied.

The concept of culture is the focus of the units on the Netsilik Eskimos. The Eskimos are studied in two environments: at camp in the summer and in autumn, when the Eskimos live off of fish and caribou; and in the winter on the sea ice, when the Eskimos live primarily by hunting seals. Topics within these units are: the physical and symbolic worlds of the Eskimo, family functions and ties, migratory life, Eskimo tools, child-rearing practices, treatment of old people, beliefs, rituals, taboos, celebrations, conflicts, and cooperating relationships. The students are encouraged to reflect on the similarities and differences between the Netsilik culture and his own.

Since learning is cumulative, it is recommended that the units be used in the sequence designated.

2.3 Materials provided.

Student. The materials designed for student use include 23 different booklets which, together, serve as a text for the course. These booklets supply data and information about concepts studied, contain notes from actual field expeditions to study baboons, poems, songs, stories, etc. In addition, each class uses 10 sets of 7 different animal study booklets; 10 sets of 23 different maps, photographs, and posters; 16 different films; 5 filmstrips; 4 phonograph records; 3 games; and 6 sets of study cards. Eight worksheets, included in the teacher's guide, can be duplicated for independent study projects.

Teacher. Materials provided for the teacher include 9 booklets which contain background information; a bibliography; sample lessons for each day of instruction; suggestions for games, art projects, and homework activities; evaluation strategies; and a complete outline of 20 inservice seminars for MACOS teachers.

2.4 Materials not provided.

Two suggested items--a map of Canada and storyboard pads--are not available from the publisher. The teacher's guide lists several sources where these items can be purchased. Some fairly common items will be needed, such as a tape measure, shoe laces, pipe cleaners, straight pins, etc. The teacher's guide provides a complete list of these materials.

There are no traditional tests provided. Instead, the developers provide a 95-page booklet on evaluation strategies as part of the teacher's materials.

3. CLASSROOM ACTIVITIES

3.1 Teaching-learning strategy.

The developers hope that the program will foster a "community of learning" in the classroom, an atmosphere in which teacher and students interact as they explore basic questions about man. The teacher's role is one of guide and resource person; he should encourage open-ended discussions and do all he can to promote the inquiry process.

The MACOS staff assume the following principles of learning:

1. Learning is a social process whereby children and teachers articulate and share ideas with one another.
2. Competence over a body of knowledge will lead to increased self-confidence and comprehension of one's operating assumptions about life.
3. The world can be observed, conjectured about, and to some degree ordered and understood using the tools of behavioral science.⁵

The developers place considerable importance on "allowing students to wrestle with the problems until they can come to terms with them in their own way."⁶

3.2 Typical lesson.

A lesson usually begins with a stimulus--a film, reading, or photograph--around which the lesson will develop. This is followed by a class discussion of what the students viewed or read; hopefully at this point the students will raise some "why?" questions which the entire class will be able to speculate about. It is essential to remember that the students' questions are as important as the teachers' questions. When films are used, the class may view the film again, stopping, if necessary, to examine the content in detail. Following the discussion, the students may take part in many different types of independent study activities, including an art project illustrating an idea from the discussion, additional reading to clarify concepts being studied, group research on a specific topic, playing games which reinforce what has been learned, or perhaps role-playing to dramatize some point of the discussion.

The teacher should guide the students in interpreting what they have viewed or read by raising questions, encouraging reflection and student questions, and reminding students of what they already know about a given topic. He will draw parallels between the known and the unknown in order to teach the children to reason through

a problem.

These kinds of activities are illustrated in the following lesson from the salmon unit. The lesson focuses on animal adaptation. The purpose of the lesson is to explore some of the fundamental relationships between the structure of an organism and its behavior. First, the concepts of structure and behavior are defined by the teacher. He shows pictures or slides of animals which illustrate the concepts; children may also show examples. Next, the class is urged to point out various animal structures such as fin, paw, tongue, fangs, etc., and to explore the relationships between the concepts of structure and behavior. It is this relationship which should intrigue the students--to see the basic connection between the structure and the behavior of an animal. When the students can "see that 'structures' exist inside the body as well as outside, the complexity of what we mean by the term 'structure' begins to unfold."⁷ At this point, the children read a booklet, *Animal Adaptation*, which helps to explain and illustrate the concepts of structure and behavior. Afterwards, the class discussion turns to the structure and behavior of any animal the children wish to discuss; one child names an animal, another names a structure of that animal, and others describe the behaviors that accompany the structure named. Another concept, environment, is introduced by having the children try to relate the structures and behaviors to the environment of each animal discussed. The children should begin to grasp that there is an orderly relationship between structures, behaviors, and the environment in which an organism lives. Finally, the children probe into man's structure and the behaviors made possible by this structure; they also reverse the process by asking what structures make certain behaviors possible. One suggested discussion question is: "... think about playing baseball or carrying groceries: What structures, besides hands, make these behaviors possible?"⁸ The developers warn, "At this point and at no point in the course are students expected to give a definitive closed answer to that question. The point is that they are supposed to explore complexity of human structures including those things which make playing baseball both possible and desirable and which distinguish man . . ." ⁹ from the other animals in more than physical ways. If the lesson is taught properly, students should begin to realize by now that they are only beginning to wrestle with a new idea which reorganizes the world in an interesting way.

3.3 Evaluation of students.

In the following statement, the developers summarize their view of student evaluation:

We believe that the evaluation process must be seen first in the most global sense as an extension of a human need to know; this involves reflection about where one has been in order to understand where one is going. Grading clearly is not the primary purpose of such evaluation. The strategies we suggest . . . are not meant to measure children against some hypothetical standard, but to give the teacher and the class ways to share in summa-

rizing and analyzing what has been happening in this course The evaluation devices [for MACOS] will focus on youngsters' perceptions and critical insights; we hope these methods will strengthen the efforts of the curriculum to develop students' ability to use ethnographic sources as evidence, to progress in skills of hypothesizing, analyzing and synthesizing, to become active and enthusiastic participants in classroom activities, and to raise and explore important questions about man's "humanness" and thus, about their own. 10

The developers describe several evaluation strategies in detail and provide examples of each. Among the strategies recommended are: (a) Interviews of children in groups of three or four. (b) Use of an opinion survey which includes such questions as "To describe my class during the Animals section, I would use the words: (Check 2 answers) easy, confusing, makes me think, fun, hard, not very important, my favorite subject, boring, other." (c) Creative projects such as art, poetry, observations, and stories in which students express their feelings and observations. (d) Content questionnaires which contain questions which probe the students' understanding of the concepts of a given unit; for instance, "A salmon is able to find its way back to its birthplace because: (Choose the one best answer and write its number in the box.) 1. Some member of the group has made the trip before. 2. The parents tell the way to their young. 3. Each salmon remembers the smell of its river. 4. Salmon learn to do this by trial and error." Developers provide answer keys for these questionnaires, as well as a table for converting raw scores to percentages for those schools which insist upon traditional testing.

Presumably, it would be best for the teacher to use a grading system other than the traditional letter or percentage grades. One approach might be to assign "p" for "performing satisfactorily" and "N" for "needs improvement."

3.4 Out-of-class preparation.

Teacher. The teacher should collect all materials needed for each day's lesson, following the charts provided in the teacher's guides. He should probably review the lesson plan provided in the guide, do any suggested background reading, become familiar with materials the students will use, preview any films or filmstrips, learn the discussion questions provided and prepare other questions he thinks are needed, and procure any needed audiovisual equipment.

Student. Out-of-class activities involve developing answers to questions, writing stories and poems, or completing special exercises such as finding photographs relevant to the topic under discussion. The amount of homework will most likely depend on the student's interest in pursuing a topic further.

4. IMPLEMENTATION: REQUIREMENTS AND COSTS

4.1 School facilities and arrangements.

Man: A Course of Study is designed for use in a classroom where there is space to rearrange desks to accommodate small discussion and research groups. It is recommended that a class consist of students at the same grade level. Field trips to the zoo and other activities require special organization and planning.

Several teachers could share one set of materials by staggering the units taught.

4.2 Student prerequisites.

Students need no special skills or abilities. The developers believe the content will be as effective for students with poor reading and writing skills as for highly verbal students. The program was originally designed for the fifth grade, but is appropriate for the fourth and sixth grades. The developers state that the course can be successfully adapted for use in grades 7-12 or even adult education.

4.3 Teacher prerequisites and training.

While the developers do not stipulate a special educational background for teachers, those who have had special work in anthropology and other social and behavioral sciences should find that an advantage. To help teachers adjust to the program, twenty inservice training seminars have been designed. The sessions, which can be held in the school, consist of programs which use readings, tapes, and films specially designed for Man: A Course of Study teachers. The sessions are intended to run concurrently with the course.

The teacher's role in this course is probably a new one for most people: it is a mediating and implementing role and may require some practice and reflection to develop. Teachers who can generate class discussions easily and who feel comfortable raising questions rather than answering them will have more success with the materials than those who prefer the constraints of a textbook.

4.4 Cost of materials, equipment, services.

The chart on the following page itemizes information about the use and cost of materials.

MATERIALS, EQUIPMENT, SERVICES, etc.; COSTS

Required Items	Quantity Needed	Source	Cost Per Item	Replacement Rate
Complete package of student and teacher materials:	1 package per 5 classrooms and 5 teachers	Curriculum Development Associates	\$3,200.00* for complete package	Reusable--very durable
23 student booklets	1 per student	Curriculum Development Associates	(Additional classroom sets may be purchased at rate of \$325 ea. for 1-4 sets, or \$300 ea. for 5 or more sets)	Reusable
16 films (16mm or super-8mm cartridges)	1 set per five classes	Curriculum Development Associates		Should not need replacement
7 animal studies booklets	10 sets per class	Curriculum Development Associates		Reusable--very durable
Filmstrips, records, maps, charts, games	10 sets per class	Curriculum Development Associates		Reusable
9 teacher guides	1 set per teacher	Curriculum Development Associates		Reusable

*Schools may order a super-8mm cartridge projector with the package for an additional \$400.00.

A lease/purchase plan can be arranged for the film portion of the package. Under this arrangement, the initial payment is \$2,600.00 with projector (\$2,200.00 without projector); plus a payment of \$577.50 the second year and \$560.00 the third year.

A set of the films alone can be purchased for \$1,750.00. Under the lease/purchase plan, a school could pay \$700.00 on date of purchase, \$577.50 the second year and \$560.00 the third year.

Workshop kits, comprised of one each of the student and teacher booklets plus the course evaluation, are available for use in approved teacher-training sessions at a cost of \$13.00 each.

University training kits, for use in teacher training, are priced at \$95.00 each. They include three "scholar tapes"---talks by Bruner, Devore, and Trivers) and all the materials necessary for teacher training except the films and projector, which must be ordered separately.

A sample set, which contains a sample of student and teacher materials and the course evaluation, costs \$5.00. Payment must accompany orders for sample sets.

Copies of the course evaluation, *Curiosity*, *Competence*, *Community*, are available at \$1.50 each.¹¹

4.5 Community relations.

The developers recommend that the school hold meetings to introduce parents to the MACOS program. Suggestions for such meetings are included in the booklet *Man: A Course of Study: Evaluation Strategies*.

4.6 Teacher training and demonstration centers.

Ninety university and teacher centers throughout the world have been established for preservice and inservice teacher training. Called the "international faculty," these centers are located primarily in universities that are connected to schools, which can in turn serve as demonstration centers for those interested in seeing *Man: A Course of Study* in use in the classroom.

PROGRAM DEVELOPMENT AND EVALUATION

5.1 Rationale.

In 1963 a group of teachers and social scientists met to consider ways of improving the social studies curriculum in the nation's schools. *Mari: A Course of Study* had its beginnings in that meeting. Several of the anthropologists were convinced that a course could be built around films which would teach children about human behavior and culture in ways that duplicated the scientists' methods of fieldwork. They also believed that materials such as journals, field notes, and photographs could be presented to the children in ways that would allow for a range of activities broad enough for children of all aptitudes and interests to enjoy.

Jerome S. Bruner's theories of learning and curriculum design were the framework on which the course was built. Professor Bruner has stated:

The best way to create interest in a subject is to render it worth knowing, which means to make the knowledge gained usable in one's thinking beyond the situation in which the learning has occurred. Knowledge one has acquired without sufficient structure to tie it together is knowledge that is likely to be forgotten.¹²

Bruner is concerned with reestablishing in the child's mind his right to have his own ideas and to express them in the classroom. The teacher's task, then, becomes one of asking the questions that will allow the child to develop his reasoning powers and capacity for "self-reflection."

Learning methods, data sources, and classroom techniques have been organized to implement these theories. While the course is full of information, it is designed primarily to encourage students to think through questions rather than to provide them with a set of facts. Open-ended discussions with students and teachers sharing ideas provide a context in which children may interact with each other and the materials, and through which the teacher can gain knowledge.

5.2 Program development.

Jerome Bruner sketched the first broad outline of the course in a 1965 position paper. The program has undergone three successive recyclings, each of which consisted of a developmental phase, a test phase with a sample target audience, and evaluation of data and reformulation of strategy before the next cycle was initiated.

All parts of the program were tested in settings that the developer did not control. Teachers were free to use the program in any manner they saw fit.

5.3 Developer's evaluation.

Field testing was conducted in public and private schools, both urban and suburban, across the U.S. The trial schools involved 3,003 students in 162 classrooms. The entire MACOS program was tested in grades 4, 5, and 6, and in ungraded classrooms in the following proportions: fourth grade, 4 percent; fifth grade, 58 percent; sixth grade, 29 percent; and ungraded, 10 percent.¹³

A variety of methods was used to test the course, namely classroom observation by the evaluators; paper-and-pencil pre- and posttests which measured students' mastery of concepts and ideas through objective, essay, and scale questions; interviews with about 150 students in 23 classes and with their teachers; and classroom environment checklists, used to judge how children viewed the course materials and their class work. These checklists were completed by control students studying traditional social studies courses as well as by MACOS students.

Of primary importance to the evaluators were: student involvement and participation, classroom environment, success of various media, personal attitudes, learning styles, and use of ideas.

5.4 Evaluation results.

The developers report that the films were found to be very successful. The variety and format of the books were also liked by the students; some began to view course reading as pleasurable. The games were judged to be highly successful, but the developers warn that "students must reflect on their play in order to learn from it."¹⁴ Some suburban children were annoyed by the amount of repetition in the student booklets.

On paper-and-pencil tests, the developers found that the students' competence on the vocabulary test rose 30%, from 40% on the pretest to 70% on the posttest.¹⁵ They report that learning gains on the animal units were not associated with student intelligence or previous knowledge; students with poor academic records gained in mastery of ideas and concepts as much as stronger students. However, on the Netsilik units, students with higher I.Q. scores made greater gains than students with lower I.Q. scores. (The evaluation report does not indicate how the I.Q. scores were determined.) It was concluded that where the lessons concerned happenings, children retained more and learned more quickly than when the lessons called for inferential or conceptual skills.

In regard to learning of concepts, students experienced some difficulty with more sophisticated concepts

such as language, innate vs. learned behavior, natural selection, etc.

Concerning ethnocentrism, students could see similarities between the Netsilik culture and their own, but results are not conclusive as to whether students developed appreciation of the diversity of mankind. Children did appreciate the cleverness of the Netsilik in problem-solving.

The Netsilik units were the favorite units of the children in the experimental classes.

When experimental classes were compared with control classes on their attitudes toward their classes, it was found that the control students found their classrooms restrictive and saw themselves as playing a passive role in school. Their teachers also seemed dissatisfied with the traditional courses, but did not seem to know how to implement changes. MACOS students found their classes more student centered.

In regard to teachers' reactions to the program, the developers note that:

They selected as the most salient and exciting characteristics of the course in the classroom: diversity of activity and materials; the verbal expressiveness and the respect for others' opinions; the power of film to convey the themes of the course, to promote skills of observation, and to motivate children to become involved. . . . The skills teachers mentioned most frequently as emphasized in the course were both social (active listening, communicating, and sharing in group exchanges) and intellectual (observing, abstracting and contrasting).¹⁶

The most frequently criticized aspects of the course were that "traditional skills were neglected and independent project not stressed."¹⁷

In regard to their classroom observations, the developers noted that:

From observations in the classrooms, one important point related to classroom methodology seems clear: Children through question-posing and follow-up projects, can demonstrate their grasp of the conceptual and methodological framework of the course; however, the teacher is critical for success and plays a focal role--defining tasks of investigation, guiding children in setting up working arrangements, and following through the collected data and the new questions raised.¹⁸

5.5 Independent analyses of the program.

A number of evaluations of Man: A Course of Study have been conducted in schools and school districts throughout the country, independently of the developers. Professor Don MacFadyen of Michigan State University is investigating, among other topics, the relation of IQ to achievement in Man: A Course of Study, and the relation of process education to creativity. His study should be completed in August 1973. He may be contacted at 301-D Erickson Hall, Michigan State University, East Lansing, Michigan 48823. In another study conducted by Arthur E. Ware in Bellevue, Washington, Man: A Course of Study students were compared with regular social studies students. Mr. Ware's address is: Coordinator for Social Studies, Bellevue Public Schools, Education Service Center, 310 102nd Ave., N.E., Bellevue, Washington 98004; tel. (206) 455-6112.

5.6 Project funding.

Development of Man: A Course of Study has been funded by the National Science Foundation (NSF); total funding is more than \$4,000,000.00.¹⁹

FOOTNOTES

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5. Education Development Center, *Man: A Course of Study: An Evaluation* (Washington, D.C.: Curriculum Development Associates, Inc., 1970), pp. 3-4.
6. Letter from Peter B. Dow, Director, *Man: A Course of Study*, Educational Development Center, September 21, 1971.
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14. Education Development Center, *Man: A Course of Study: An Evaluation* (Washington, D.C.: Curriculum Development Associates, Inc., 1970), p. 24.
15. *Ibid.*, p. 22.
16. *Ibid.*, p. 28.
17. *Ibid.*
18. *Ibid.*
19. Correspondence with Peter B. Dow.